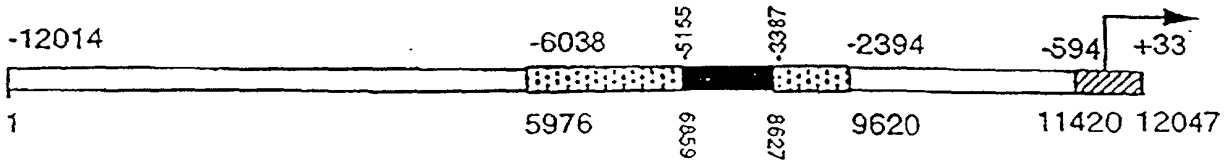

-12014
-6038
-5155
-3387
-2394
-594
+33
1
5976
6659
8627
9620
11420
12047

FIGURE 1

```
HKLK2.LA0    ( 6998)  AA-CTGAGCCTTGATTATATTG-GAGCTTGGTTGCA-CAG-ACATGTCGA
PSE          ( 509)   AATCT-AG-C-TGA-TATAGTGTG-GCTCAAAACCTTCAGCACAAATC-A

HKLK2.LA0    ( 7044)  CCACCTTCATGGCTGAACTTTAGTACTTAGCCCCTCCAGACGTCTACAGC
PSE          ( 553)   -CACCGTTA-GACT--A-TCTGGT--GT-G--GC-CCAAAC--CTTCAGG

HKLK2.LA0    ( 7094)  TGATAGGCTGTAACCCAACAT-TGTCACCATAAATCACATTGTTAGACTA
PSE          ( 598)   TGA-ACAAAGGGACTCTA-ATCTGGCAGGAT-ATTC-CA----AAG-C-A

HKLK2.LA0    ( 7143)  TCCAGTG-TGGCC-CAAGCTCCCGTGTAAACACAGGCACTCTAAACAG--
PSE          ( 630)   T-TAGAGATGACCTCTTGC-AAAG-AAAAAGAAATGGAAAAGAAAAAGAA

HKLK2.LA0    ( 7189)  -G-CAGGATATTTCAAAAGCTT-AGAGATGACCTCCCAGGAGCTGAATGC
PSE          ( 677)   AGAAAGGAAAAAAAAAAAAAAAAAGAGATGACCTCTCAGGCTCTGAGGGG

HKLK2.LA0    ( 7236)  AAA-GACCTGGCCTCTTTGGGCAAGGAGAATCCTTTACCGCACACTCTCC
PSE          ( 727)   AAACG-CCTGAGGTCTTTGAGCAAGGTCAGTCCTCTGTTGCACAGTCTCC

HKLK2.LA0    ( 7285)  TTCACAGGGTTATTGTGAGGATCAAATGTGGTCATGTGTGTGAGACACCA
PSE          ( 776)   CTCACAGGGTCATTGTGACGATCAAATGTGGTCACGTGTATGAGGCACCA

HKLK2.LA0    ( 7335)  GCACATGTCTGGCTGTGGAGAGTGACTTCTA--TGTGTGCTAACATTGCT
PSE          ( 826)   GCACATGCCTGGCTCTGGGGAGTGCCGTGTAAGTGTATGCTTGCACTGCT

HKLK2.LA0    ( 7383)  GAGTGCTAAGAAAGTATTAGGCATGGCT-TTCAGCACTCACAGATGCTCA
PSE          ( 876)   GAATGCTTGGGATGTGTCAGGGAT-TATCTTCAGCACTTACAGATGCTCA
```

FIGURE 2A

```
HKLK2.LA0   (7432)  TCTAATCCTCACAACATGGCTACAGGG-TGGGCACTACTAGCCTCATTTG
PSE         ( 925)  TCTCATCCTCACAGCATCACTA-TGGGATGGGTATTACTGGCCTCATTTG

HKLK2.LA0   (7481)  ACAGAGGAAAG-GACTGTGGATAAGAAGGGGGTGACCAATAGGTCAGAGT
PSE         ( 974)  ATGGA-GAAAGTGGCTGTGGCTCAGAAAGGGGGGACCACTAGACCAGGGA

HKLK2.LA0   (7530)  CATTCTGGATGCAAGGGG-CTCCAGAGGACCATGATTAGACATTGTCTGC
PSE         (1023)  CACTCTGGATGC-TGGGGACTCCAGA-GACCATGACCACTCACCAACTGC

HKLK2.LA0   (7579)  AGAGAAATT----ATGG-CTGGATGTCTCTGCCCCGGAAAGGG-GGA--T
PSE         (1071)  AGAGAAATTAATTGTGGCCT-GATGTCCCTGTCCTGGAGAGGGTGGAGGT

HKLK2.LA0   (7621)  GCACTTTCCTTGACCCCCTATCTCAGATCTTGACTTTGAG-GTTATCTCA
PSE         (1120)  GGACCTTCACTAACCTCCTACCT-TGACCCTCTCTTTTAGGGCTCTTTCT

HKLK2.LA0   (7670)  GACTTCCTCTATGATACCAGGAGCCCATCATAATCTCTCTGTGTCCTCTC
PSE         (1169)  GACCTCCACCATGGTACTAGGA-CCC--CATTGTAT-TCTGT-ACC-CT-

HKLK2.LA0   (7720)  CCCTTCCTCAGTCTTACTG-CCCACTCTTCCCAGCTCCATCTCCAGCTGG
PSE         (1212)  --C-T--TGACTC-TA-TGACCCCCACTGCCCA-CTGCA--TCCAGCT--

HKLK2.LA0   (7769)  CCAGGTGTAGCCACAGTACCTAACTCT-TTGCAGAGAACTATAAATGTGT
PSE         (1250)  ---GG-GT--CC-C-CT-CCTATCTCTATT-CCCAG--CTGGCCA-GTGC

HKLK2.LA0   (7818)  A-TCCTACAGGGGAGAAAAAAA-AAAAG-AACTCTGAAAGAGCTGACATT
PSE         (1287)  AGT-CT-CAGTGCCCACCTGTTTGTCAGTAACTCTGAAGGGGCTGACATT

HKLK2.LA0   (7865)  TTACCGACTTGCAAACACATAAGCTAACCTGCCAG--TTTTGT----GCT
PSE         (1335)  TTACTGACTTGCAAACAAATAAGCTAACTTTCCAGAGTTTTGTGAATGCT

HKLK2.LA0   (7909)  GGTAGAACT-CATGAGACTCCTGGGTCAGAGGCAAAAGATTTTATTACCC
PSE         (1385)  GGCAG-AGTCCATGAGACTCCTGAGTCAGAGGCAAAGGCTTTTACTGCTC
```

FIGURE 2B

```
HKLK2.LA0   ( 7958) ACAGCTAAGGAGGCAGCATGAACTTTGTGTTCACATTTGTTCACTTTGCC
PSE         ( 1434) ACAGCTTAGCAGACAGCATGAGGTTCATGTTCACATTAGTACACCTTGCC

HKLK2.LA0   ( 8008) CCCC--AATTCATAT-GGGATGATCAGAGCAGTTC-AGGTGGATG--G-A
PSE         ( 1484) CCCCCCAAATCTTGTAGGG-TGACCAGAGCAG-TCTAGGTGGATGCTGTG

HKLK2.LA0   ( 8051) CA-CAGGGGTTTGTGGCAAAGGTGAGCAACCTAG-GCTTAGAAATCCTCA
PSE         ( 1532) CAGAAGGGGTTTGTGCCACTGGTGAGAAACCT-GAGATTAGGAATCCTCA

HKLK2.LA0   ( 8099) ATCTTATAAGAAGGTACT---AGCAAACTTGTC-CAGTCTTTGTATCTGA
PSE         ( 1581) ATCTTAT-ACTGGG-ACAACTTGCAAACCTG-CTCAGCCTTTGTCTCTGA

HKLK2.LA0   ( 8145) CGGAGATATTATCTTTATAAT-TGGG-TTGAAAGCAGACCTACTCTGGAG
PSE         ( 1628) TGAAGATATTATCTTCATGATCTTGGATTGAAAACAGACCTACTCTGGAG

HKLK2.LA0   ( 8193) GAACATATTGTATTTATTGTCCT-GAACAGTAAACAAATCTGCTGTAAAA
PSE         ( 1678) GAACATATTGTATCGATTGTCCTTG-ACAGTAAACAAATCTGTTGT--AA

HKLK2.LA0   ( 8242) TAGACGTTAACTTTATTATCTAAGG-CAGTAAGCAAACCTAGATCTGAAG
PSE         ( 1725) GAGACATTATCTTTATTATCT-AGGACAGTAAGCAAGCCTGGATCTG-AG

HKLK2.LA0   ( 8291) -GCGATACCATCTTGCAAGGCTATCTGCTGTACAAATATGCTTGAAAAGA
PSE         ( 1773) AGAGATATCATCTTGCAAGGATGCCTGCTTTACAAACATCCTTGAAACAA

HKLK2.LA0   ( 8340) TGGTCCAGAAAAGAAAACGGTATTATTGCCTTTGCTCAGAAGACACACAG
PSE         ( 1823) CAATCCAGAAAA-AAAAAGGTGTTGCTGTCTTTGCTCAGAAGACACACAG

HKLK2.LA0   ( 8390) AAACATAAGAGAACCATGGAAAATTGTCTCCCAACACTGTTCACCCAGAG
PSE         ( 1872) ATACGTGACAGAACCATGGAGAATTGCCTCCCAACGCTGTTCAGCCAGAG

HKLK2.LA0   ( 8440) CCTTCCACTCTTGTCTGCAGCACAGTCTTAACATCCCATCATTAG-T-GT
PSE         ( 1922) CCTTCCACCCTTGTCTGCAG(ACAGTCTCAACGTTCCACCATTAAATACT
```

FIGURE 2C

```
HKLK2.LA0      (8488)  --GTCTACCACATCTGGCTTCACCGTGCCTAACCAAGATTTCTAGGTCCA
PSE            (1972)  TCTTCTATCACATCCTGCTTCTTTATGCCTAACCAAG-GTTCTAGGTCCC
HKLK2.LA0      (8536)  GTTCCCCACCATGTTTGGCAGTGCCCCACTGCCAACCCCAGAATAAGGGA
PSE            (2021)  GAT--CGACTGTGTCTGGCAGCACTCCACTGCCAAACCCAGAATAAGGCA
HKLK2.LA0      (8586)  GTGCTCAGAATTCCGA
PSE            (2069)  GCGCTCAGGATCCCGA
```

FIGURE 2D

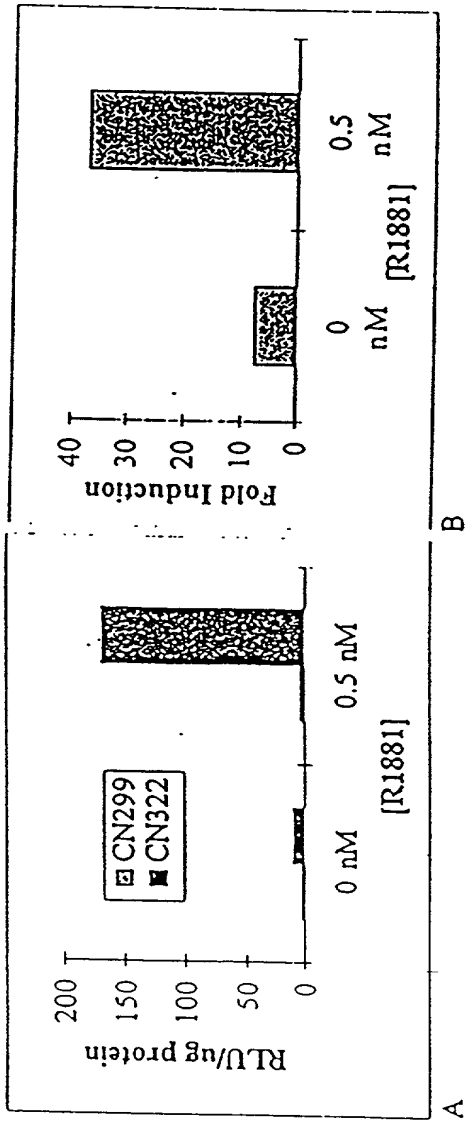

A
RLU/ug protein
200
150
100
50
0
CN299
CN322
0 nM
0.5 nM
[R1881]
B
Fold Induction
40
30
20
10
0
0 nM
0.5 nM
[R1881]

FIGURE 3

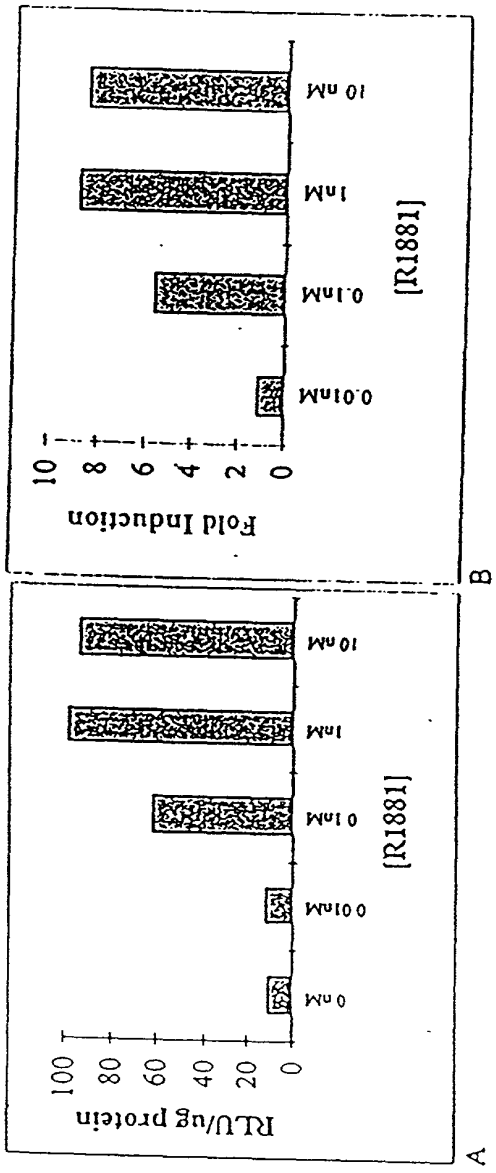

A
RLU/ug protein
0
20
40
60
80
100
0 nM
0.01nM
0.1nM
1nM
10 nM
[R1881]
B
Fold Induction
0
2
4
6
8
10
0.01nM
0.1nM
1nM
10 nM
[R1881]

FIGURE 4

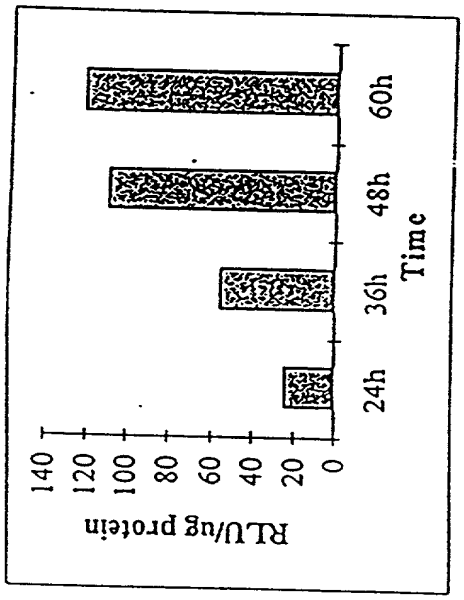


FIGURE 5

10220t 82525 2650

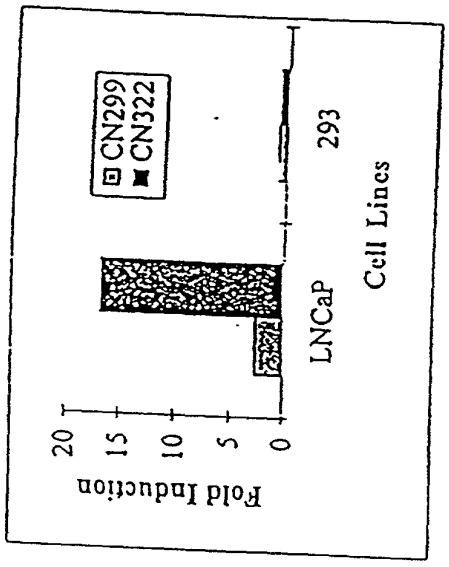


FIGURE 6

TO220T-B2253860

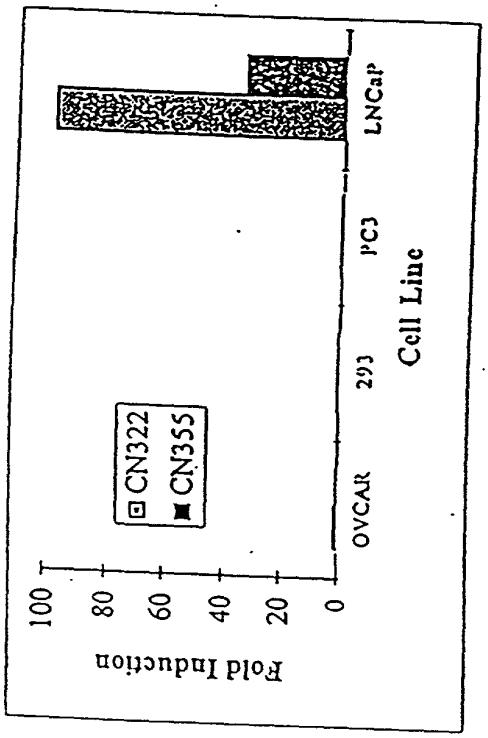

Fold Induction
100
80
60
40
20
0
CN322
CN355
OVCAR
293
PC3
LNCaP
Cell Line

FIGURE 7

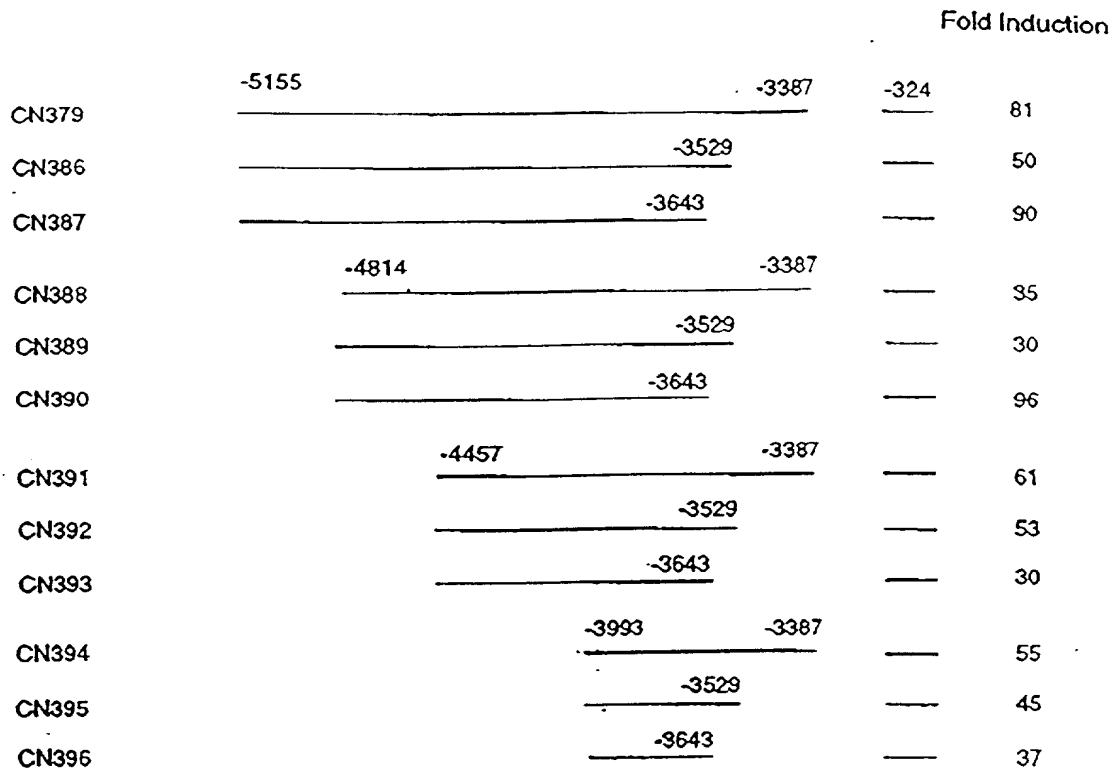


FIGURE 8

Document: 348022000901

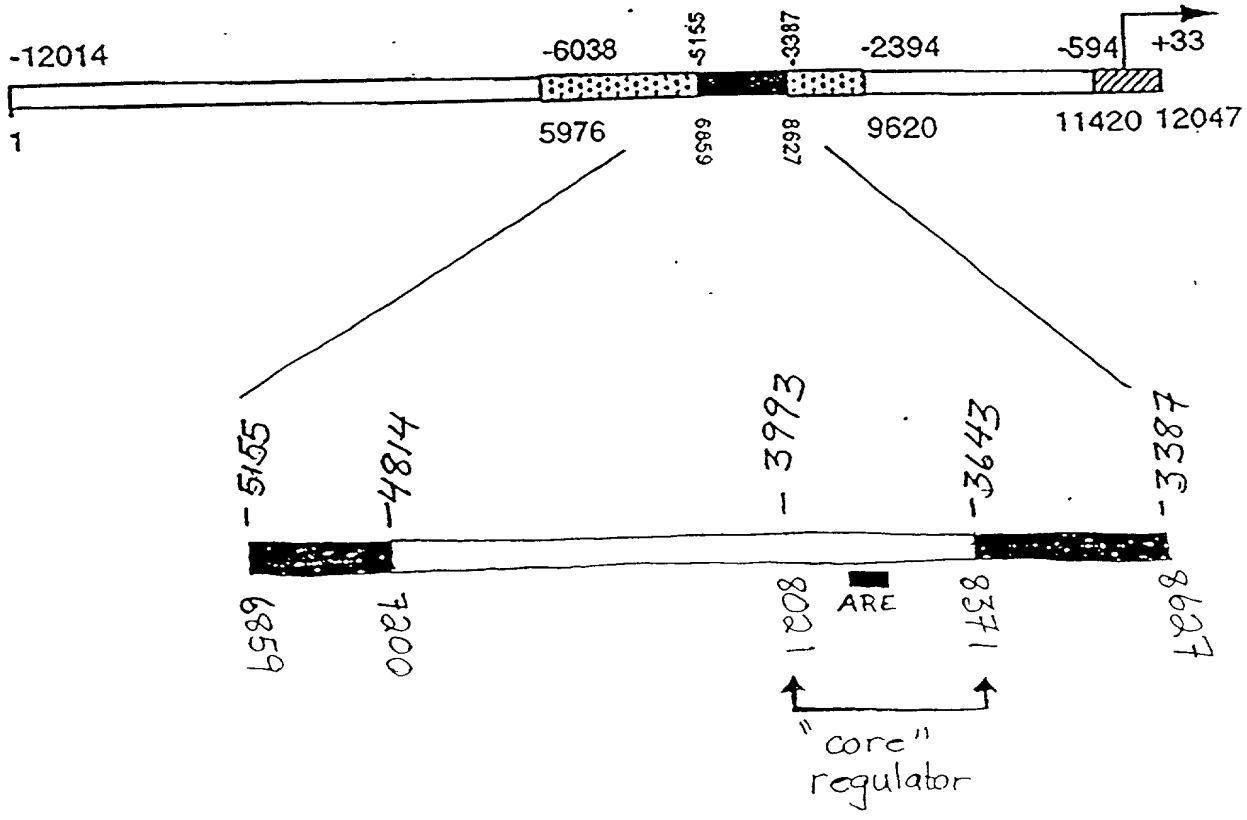
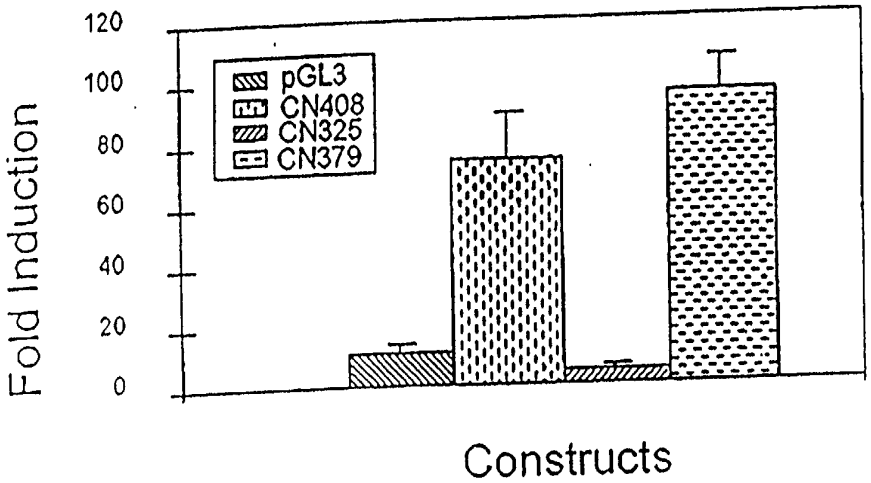

-12014
-6038
-5155
-3387
-2394
-594
+33
1
5976
6659
8627
9620
11420
12047
-5165
-4814
-3993
-3643
-3387
6589
7200
12028
ARE
11438
12698
"core" regulator

FIGURE 9

T0220T "8225/860

A



B

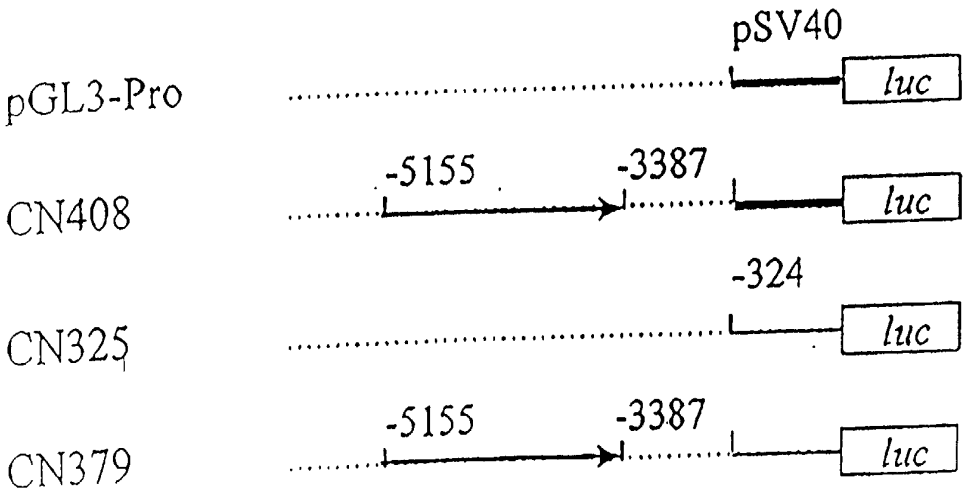


FIGURE 10

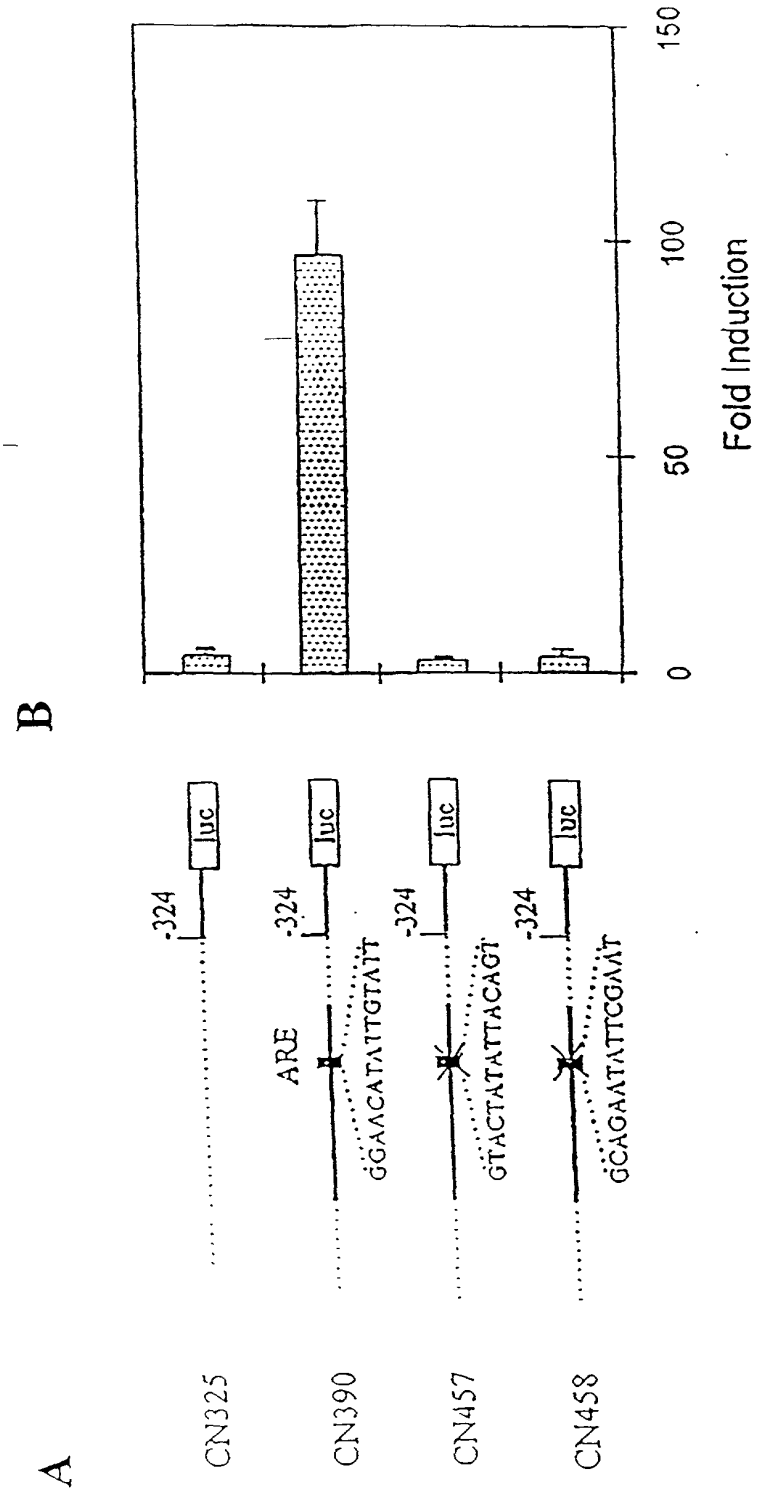

A
CN325
CN390
CN457
CN458
-324
luc
ARE
GGAACATATTGTATT
GTACTATATTACAGT
GCAGAATATTCGAAT
B
Fold Induction
0
50
100
150

FIGURE 11

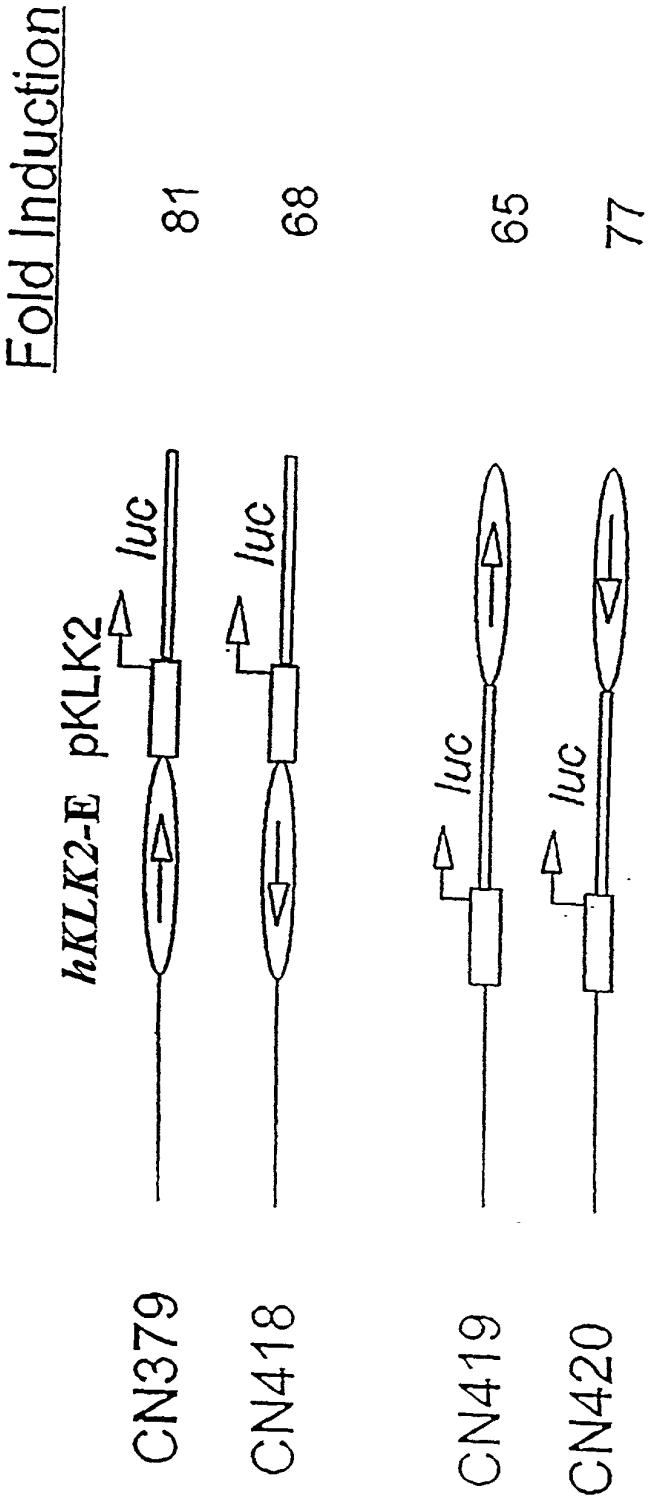


FIGURE 12

09875228 - 062201

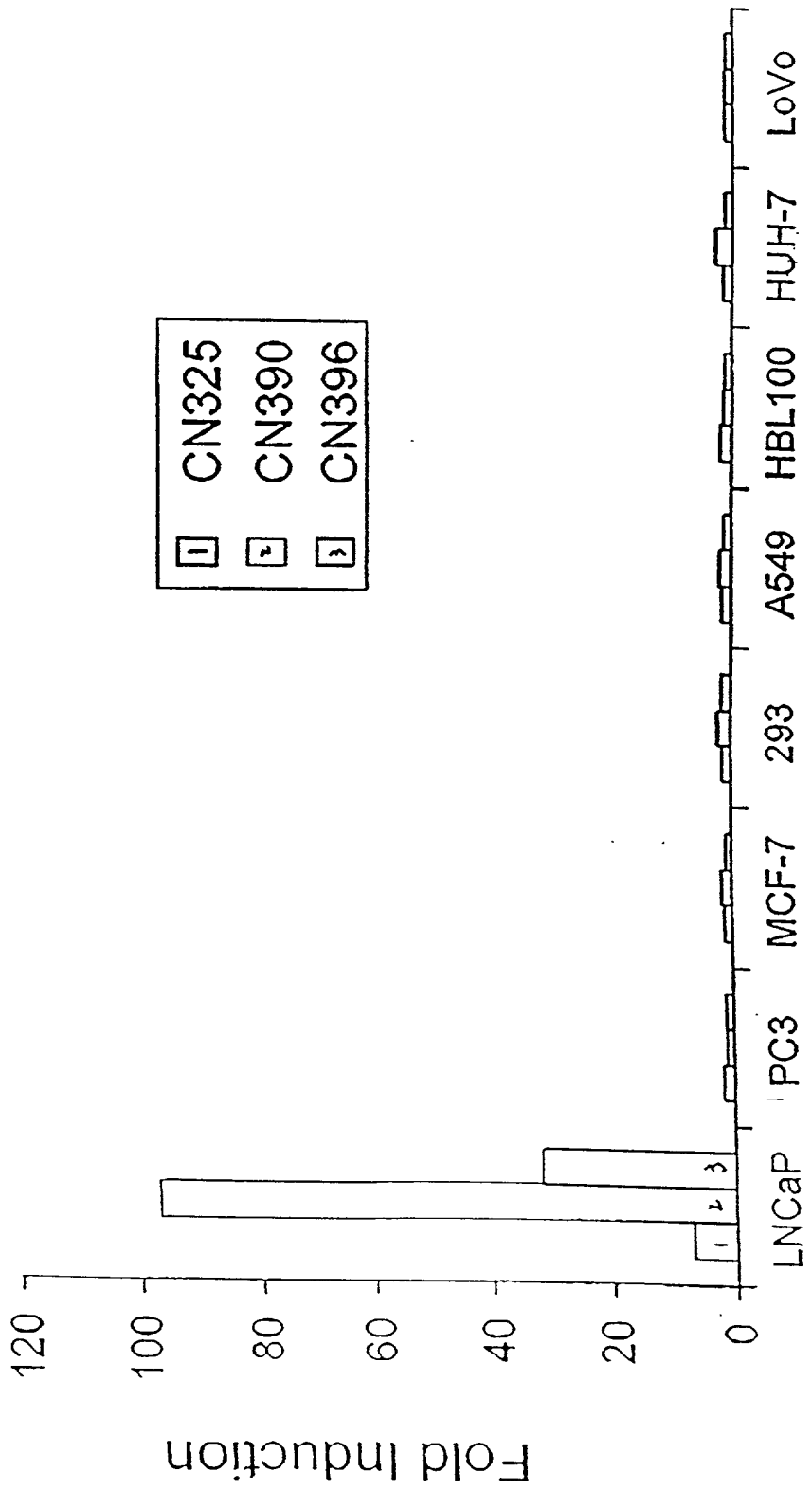

Fold Induction
120
100
80
60
40
20
0
LNCaP
PC3
MCF-7
293
A549
HBL100
HUH-7
LoVo
Cell Line
1 CN325
2 CN390
3 CN396

FIGURE 13

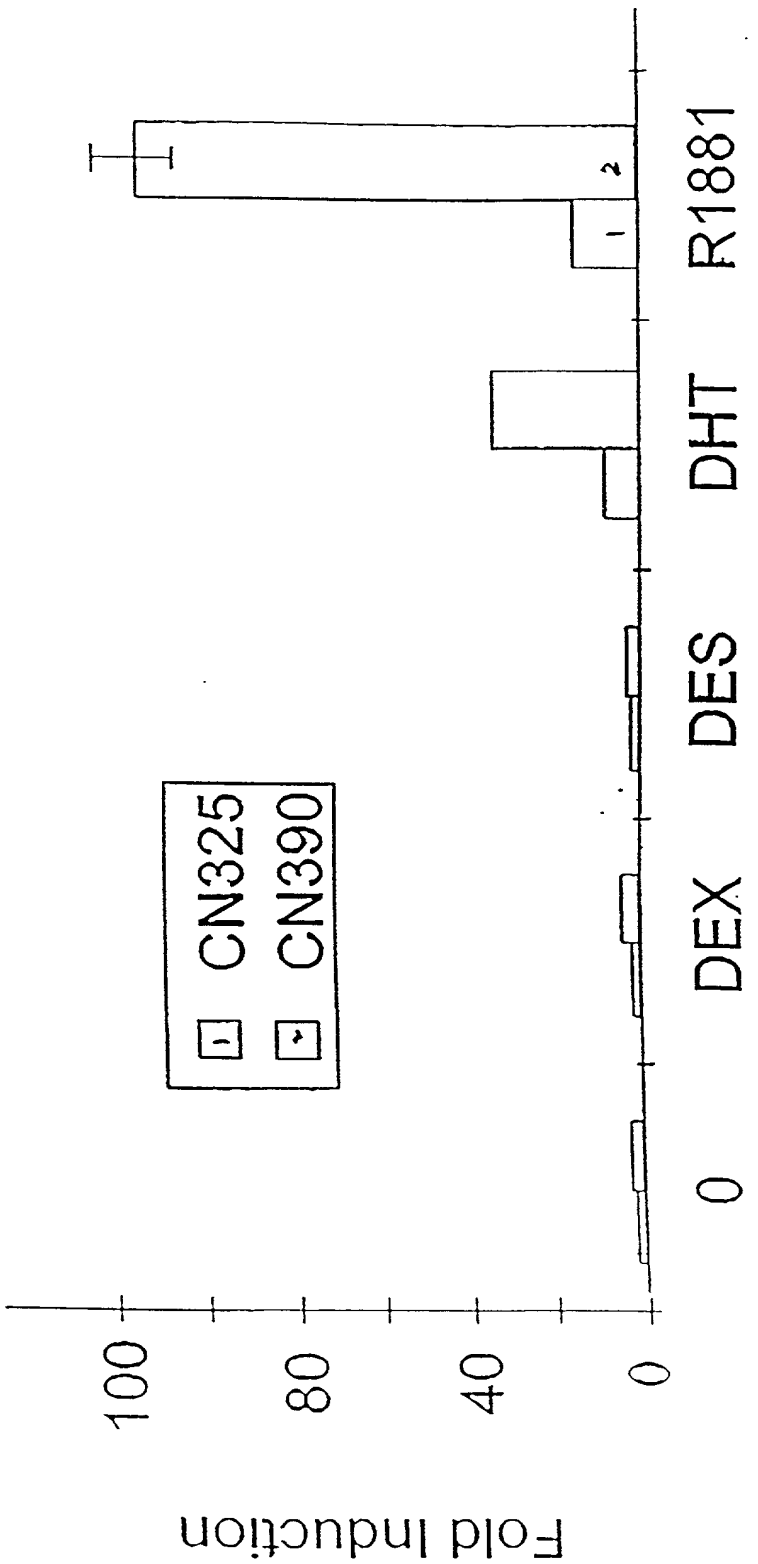

Fold Induction
100
80
40
0
CN325
CN390
0
DEX
DES
DHT
R1881
Steroid

FIGURE 14

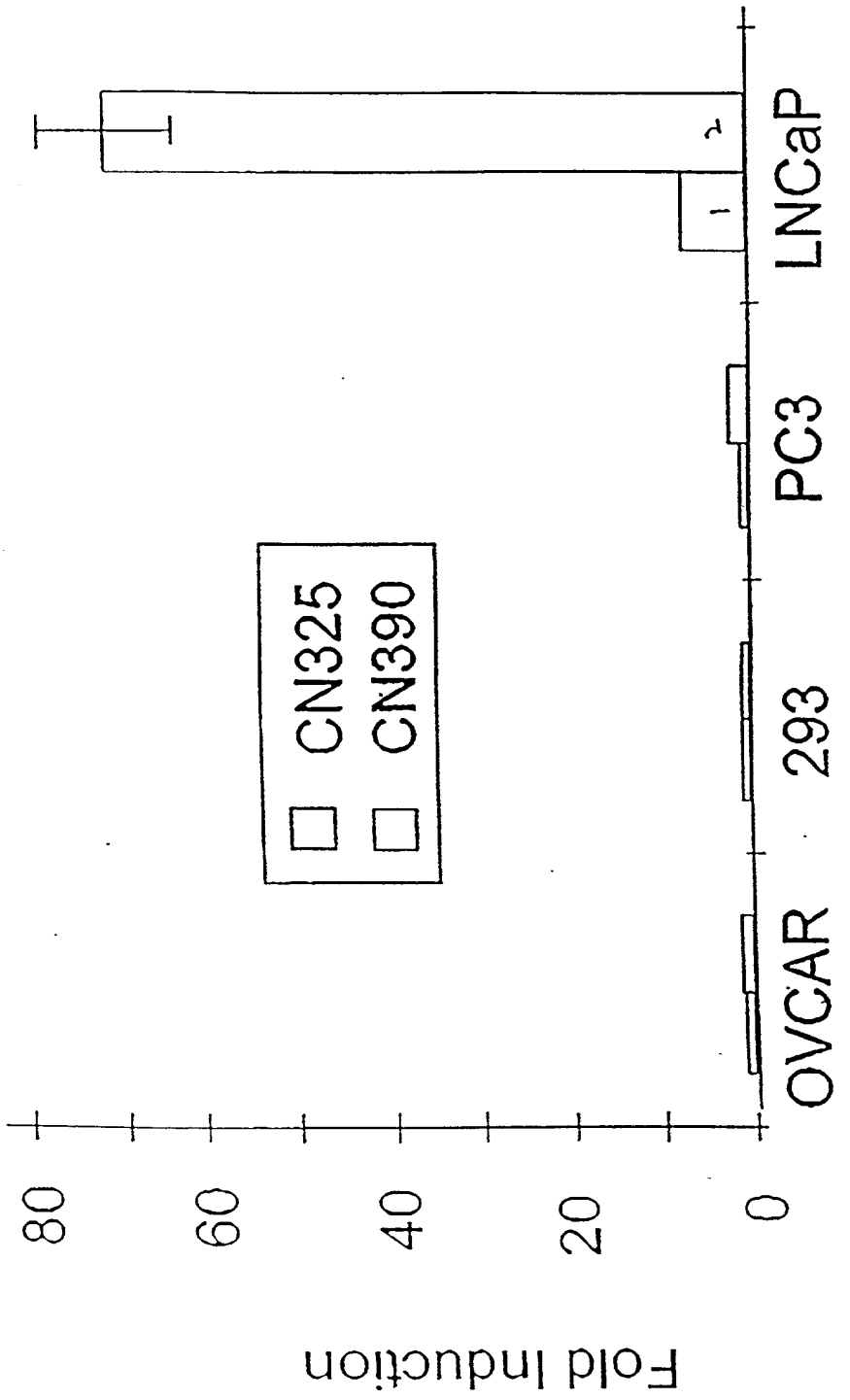

Fold Induction
80
60
40
20
0
OVCAR
293
PC3
LNCaP
Cell Line
CN325
CN390
1
2

FIGURE 15

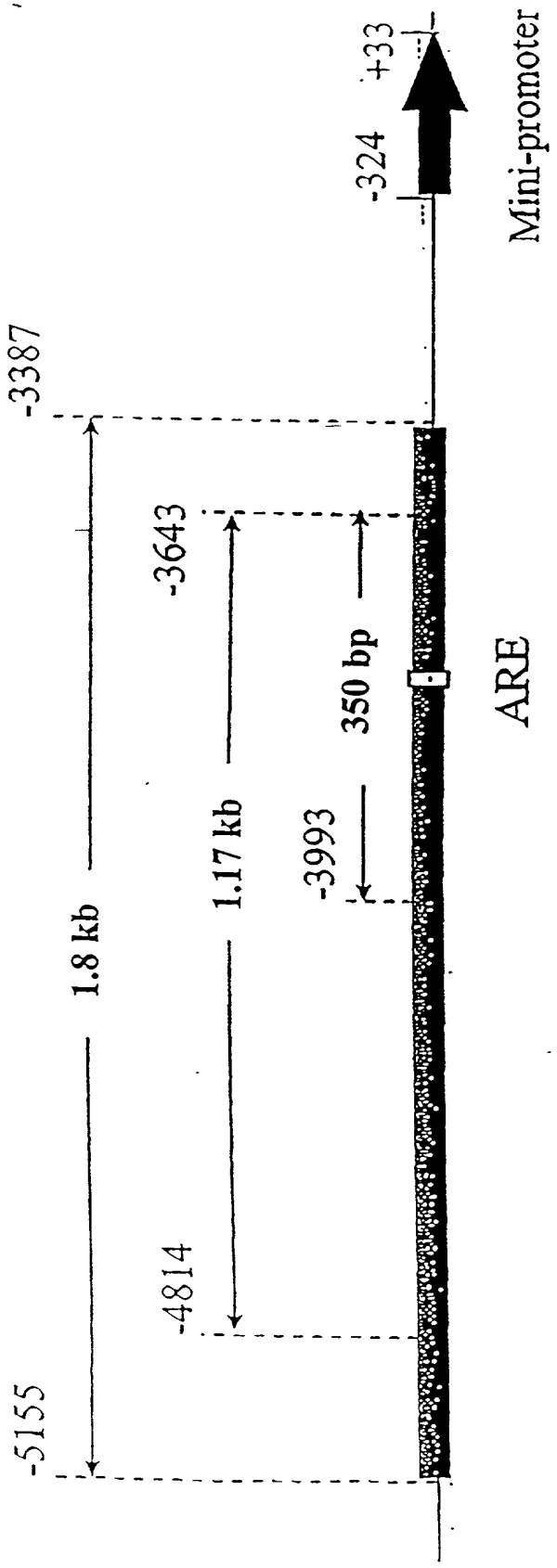

-3387
-3643
-3993
-4814
-5155
1.8 kb
1.17 kb
350 bp
ARE
-324
+33
Mini-promoter

FIGURE 16

T0220T "09875228"

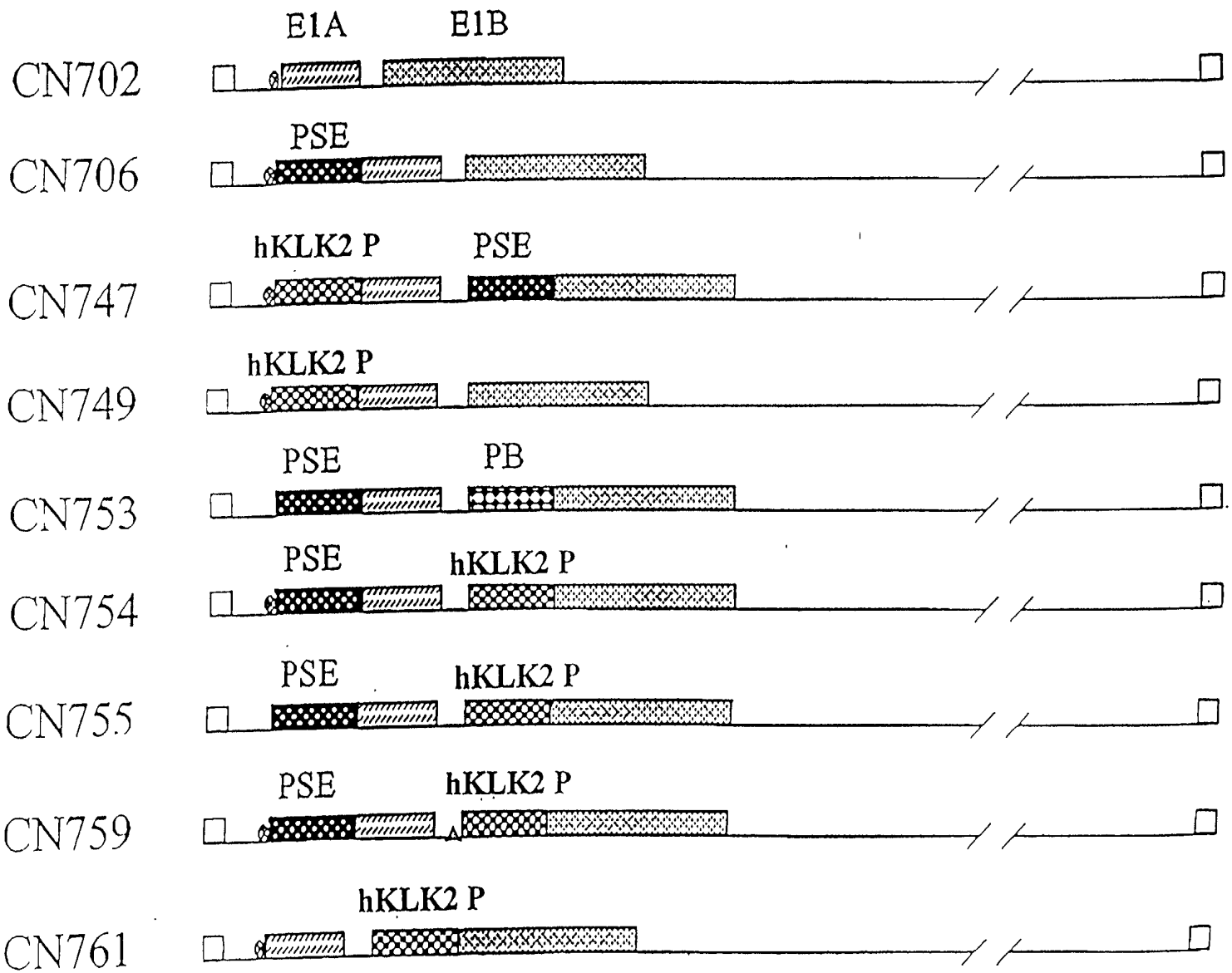
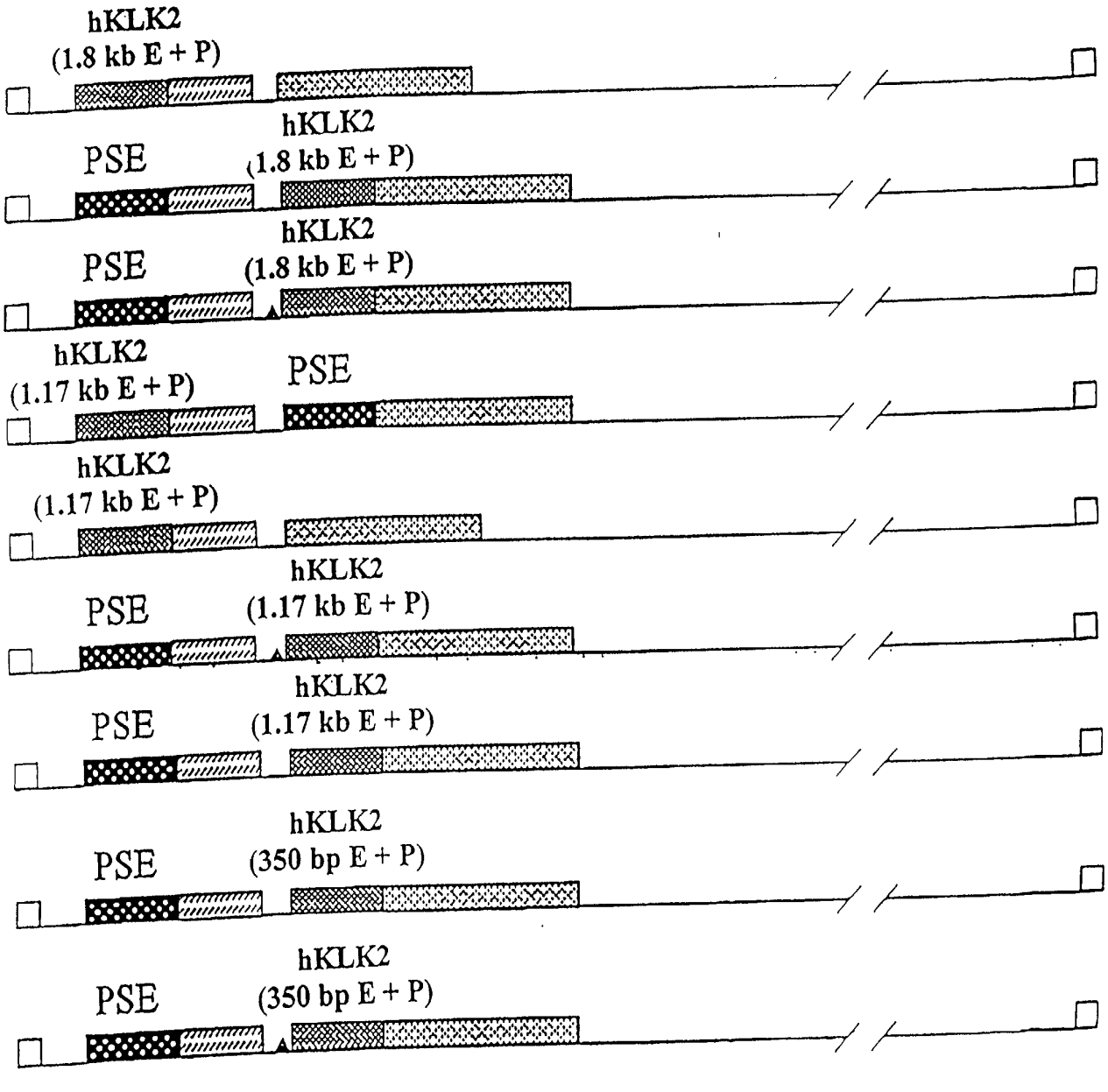


FIGURE 17A

T0220T 32252860

FIGURE 17B



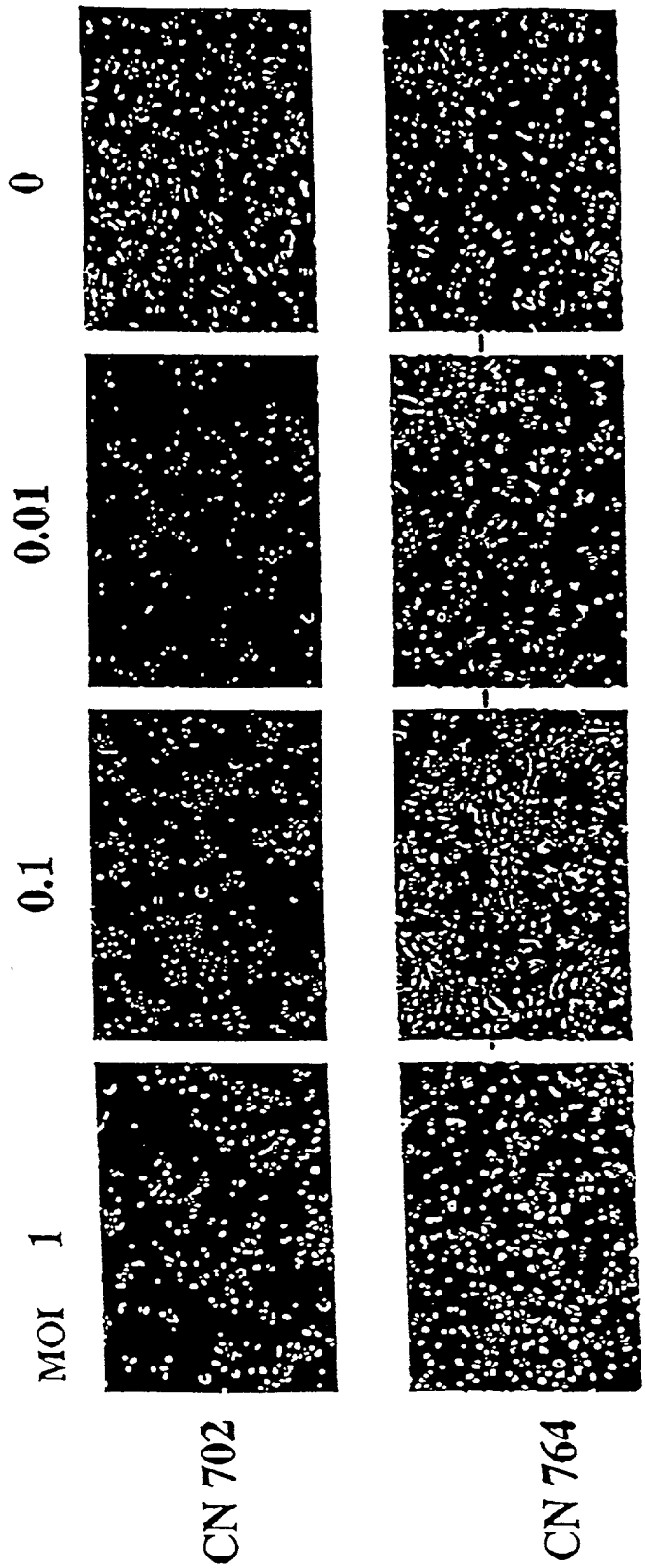


FIGURE 18

1-02201-6225/Spec

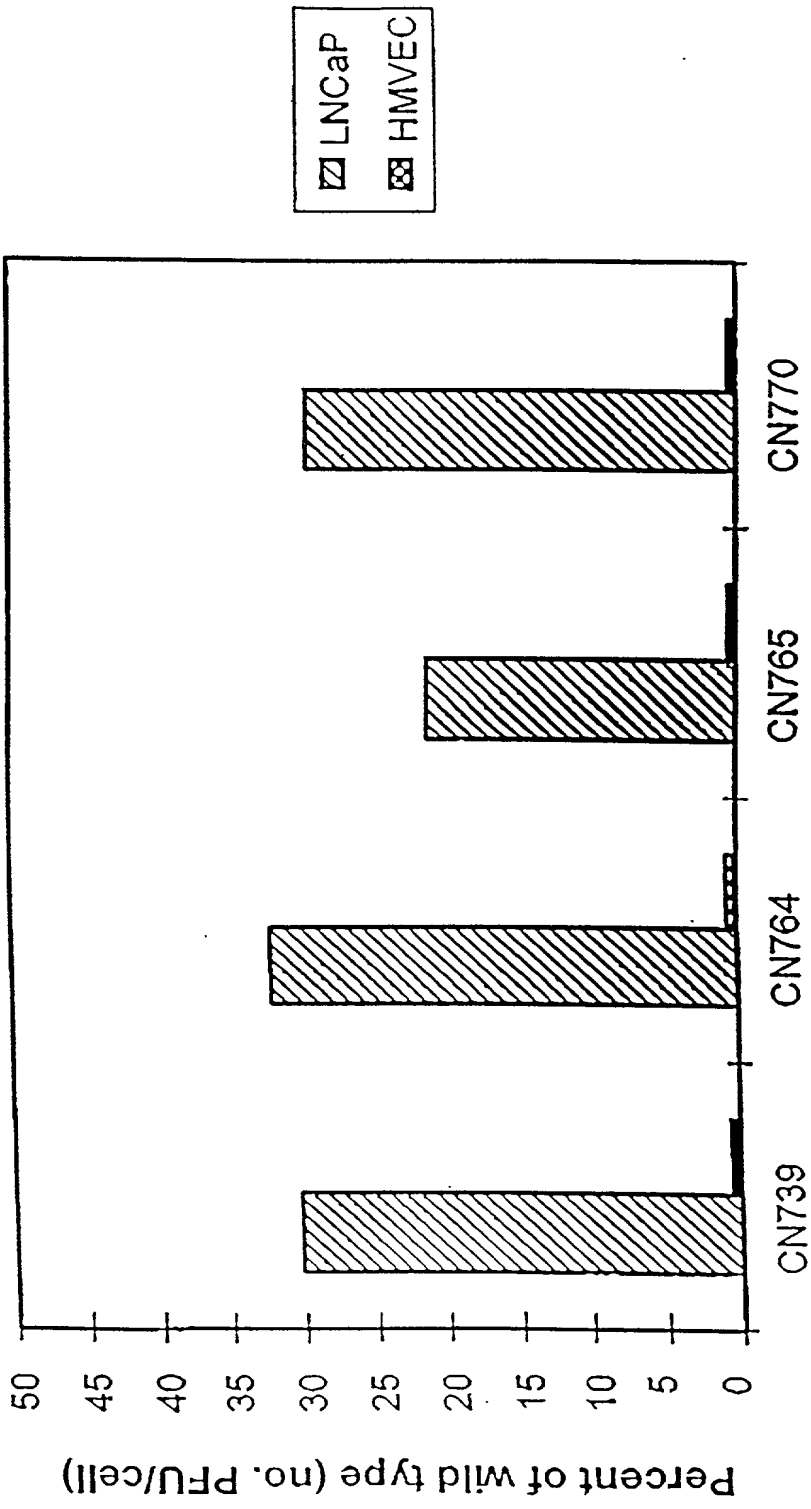

LNCaP
HMVEC
CN739
CN764
CN765
CN770
0
5
10
15
20
25
30
35
40
45
50
Percent of wild type (no. PFU/cell)

FIGURE 19

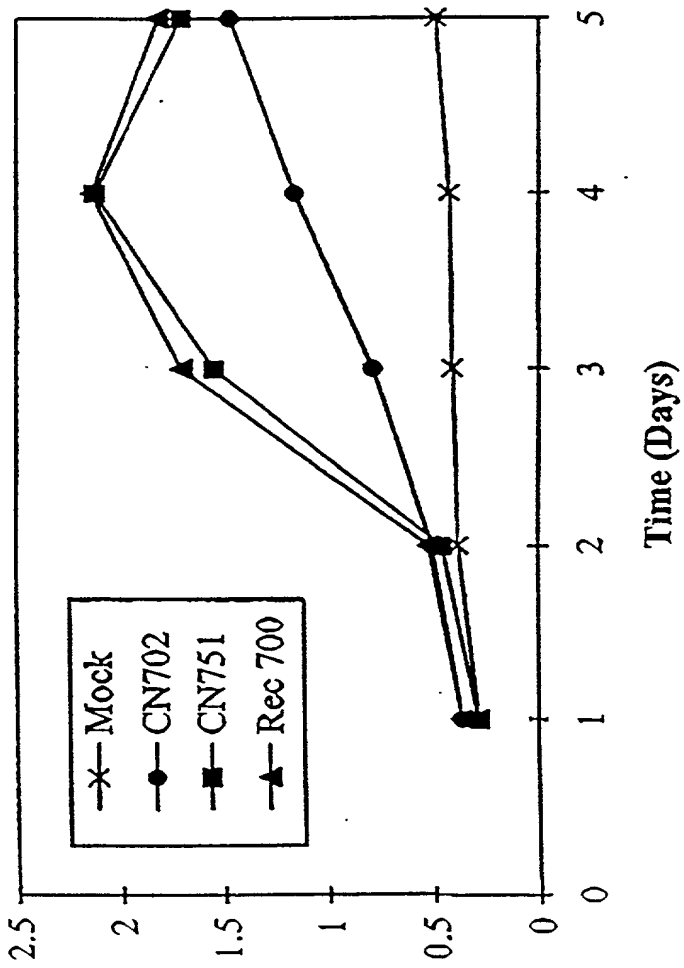


FIGURE 20

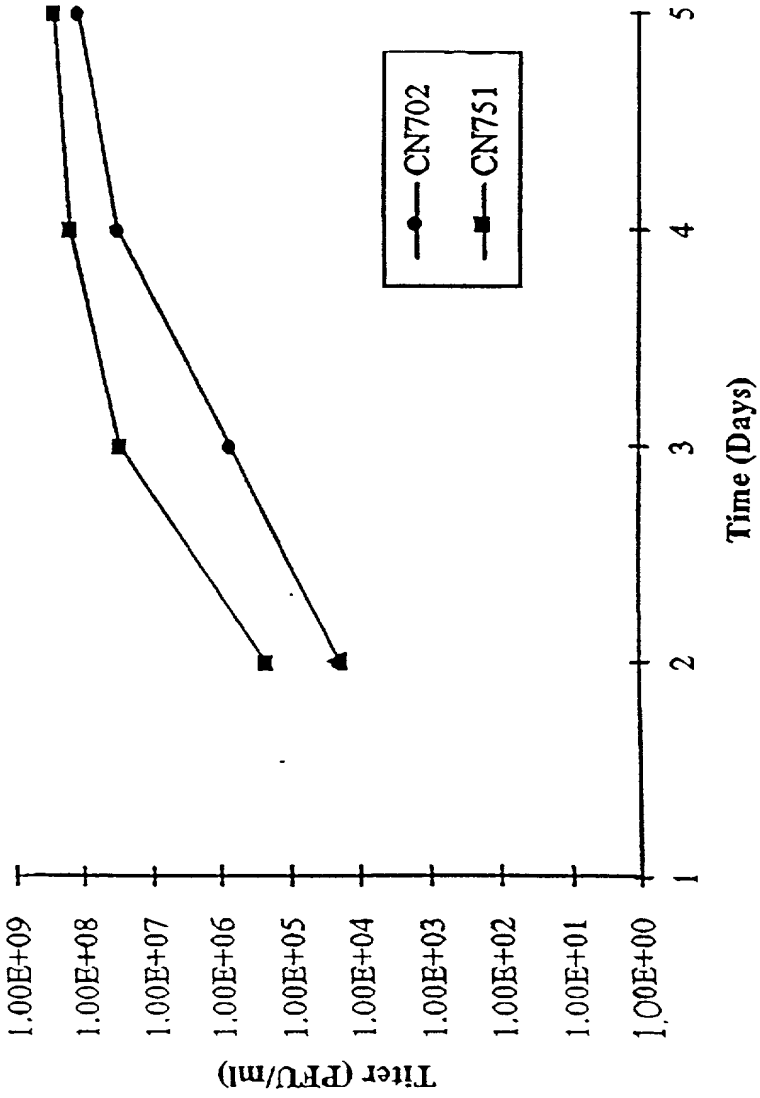

CN702
CN751
Time (Days)
Titer (PFU/ml)
1.00E+09
1.00E+08
1.00E+07
1.00E+06
1.00E+05
1.00E+04
1.00E+03
1.00E+02
1.00E+01
1.00E+00
1
2
3
4
5

FIGURE 21

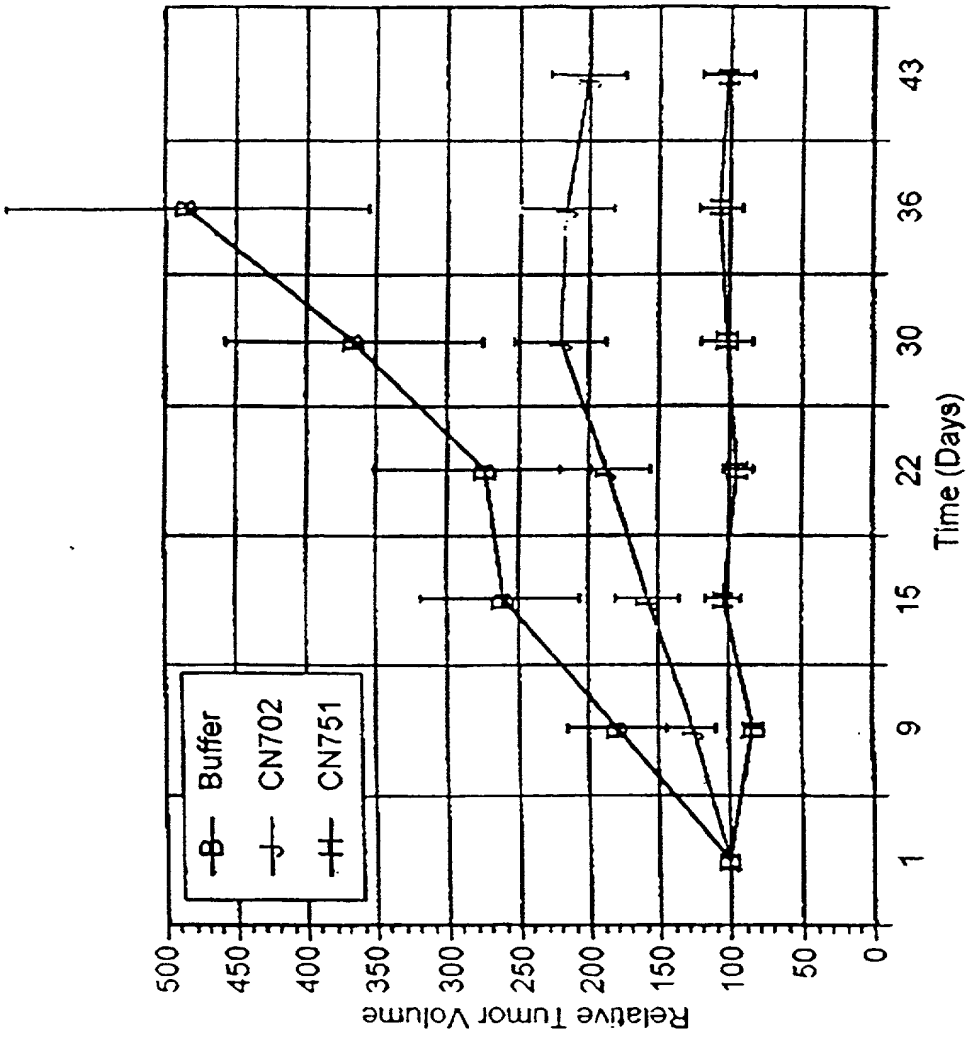

Relative Tumor Volume
500
450
400
350
300
250
200
150
100
50
0
1
9
15
22
30
36
43
Time (Days)
Buffer
CN702
CN751

FIGURE 22

TO220T "82252860

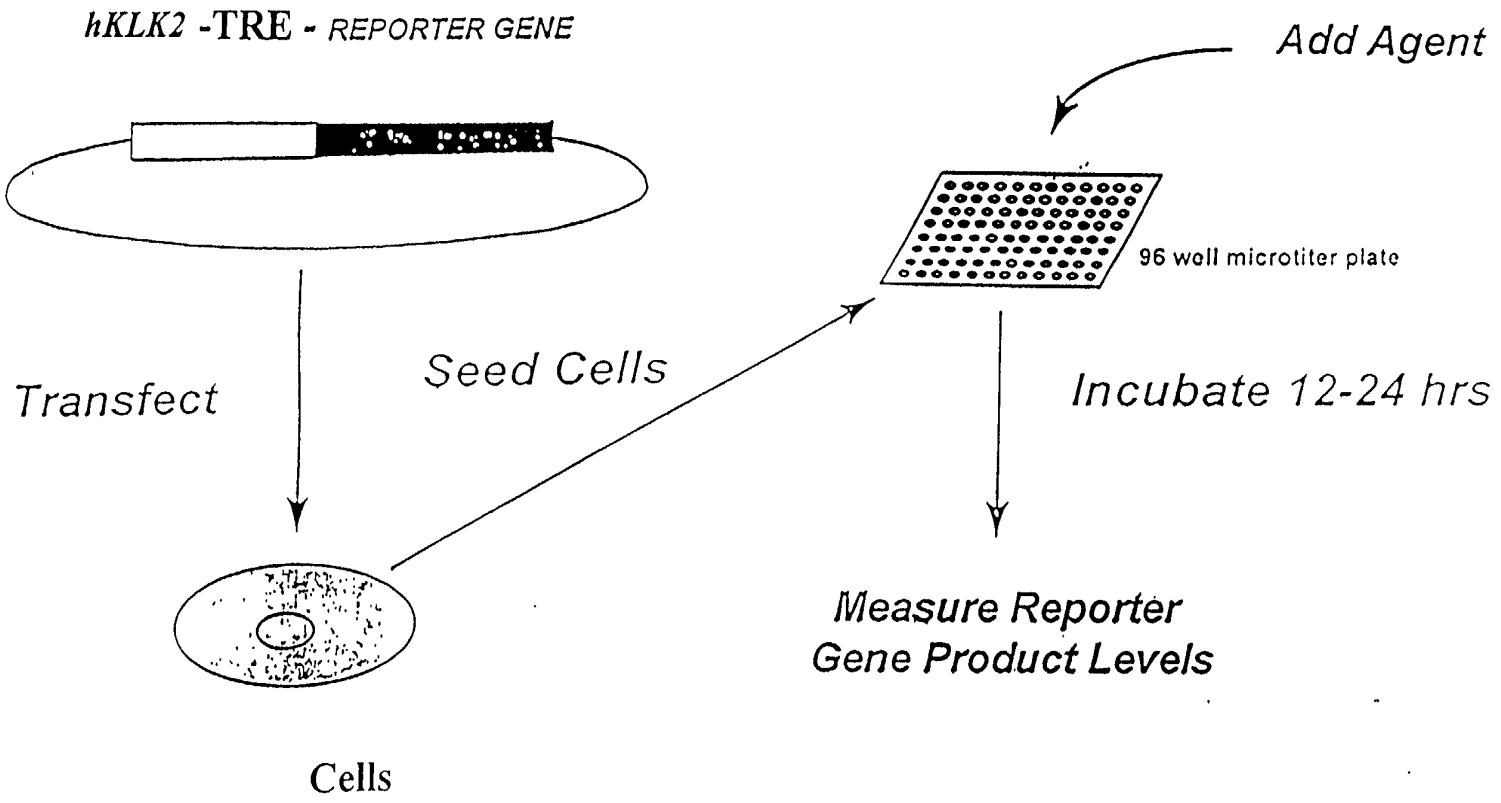


FIGURE 23A

TO220T"82252860

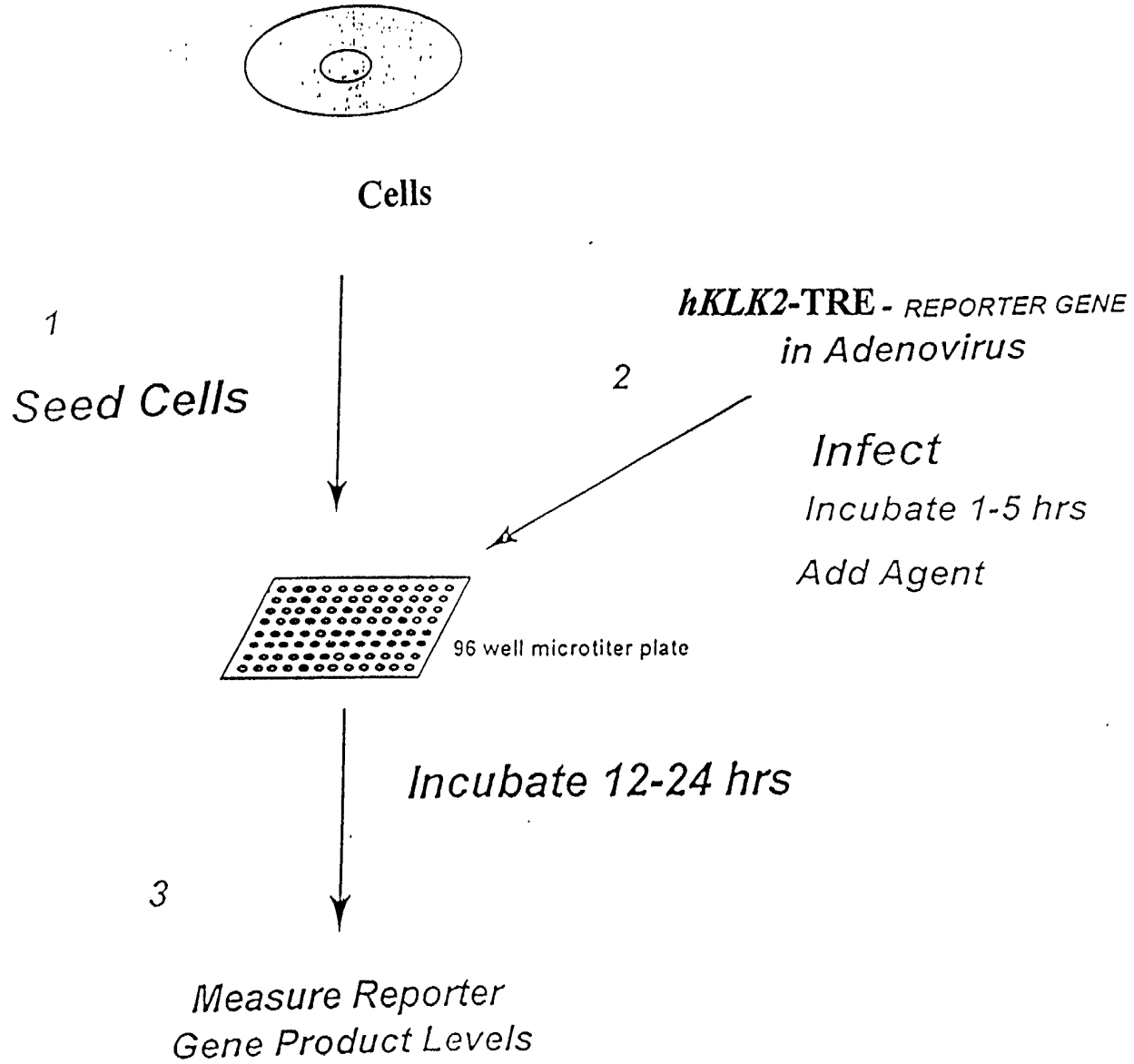


FIGURE 23B

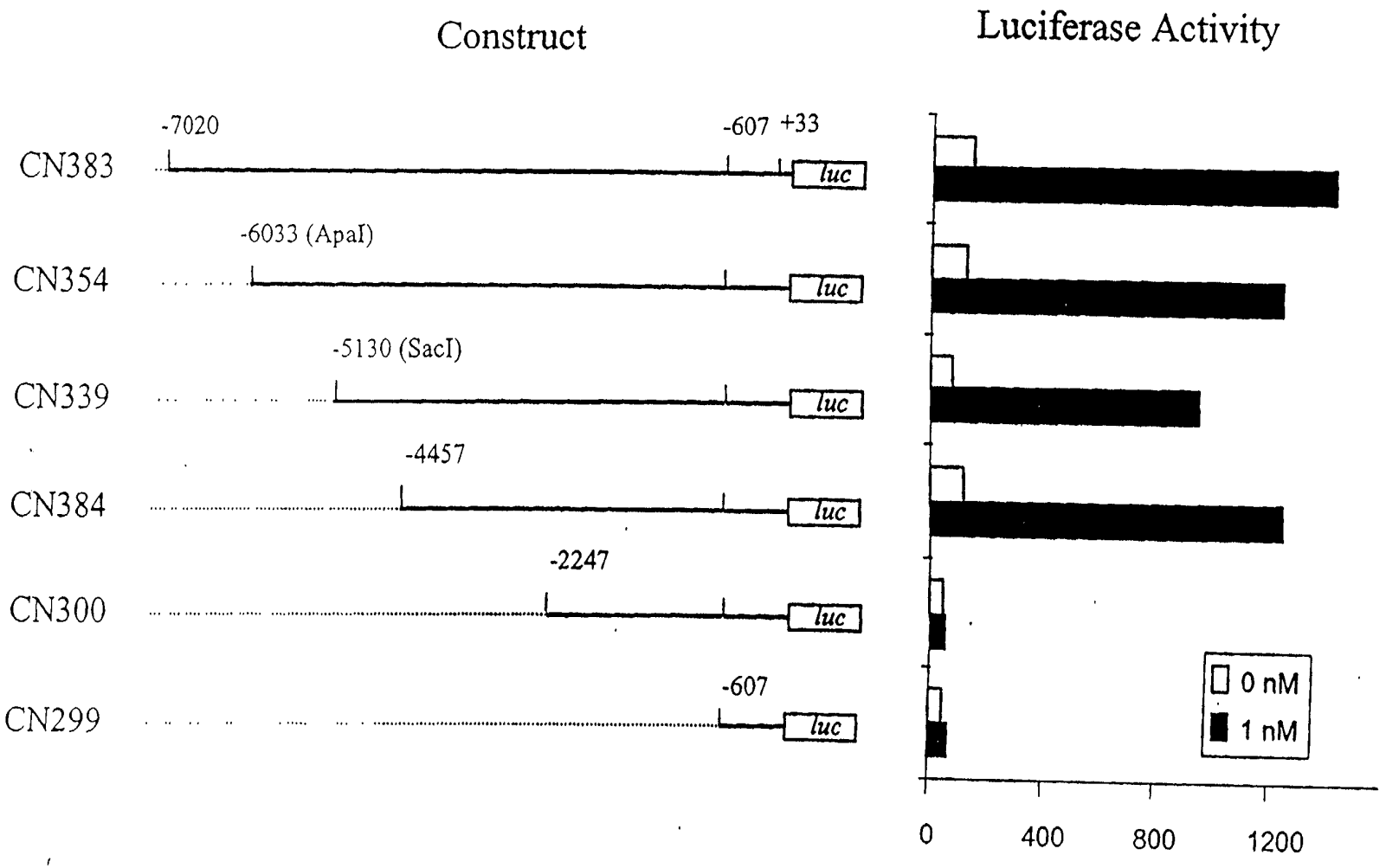
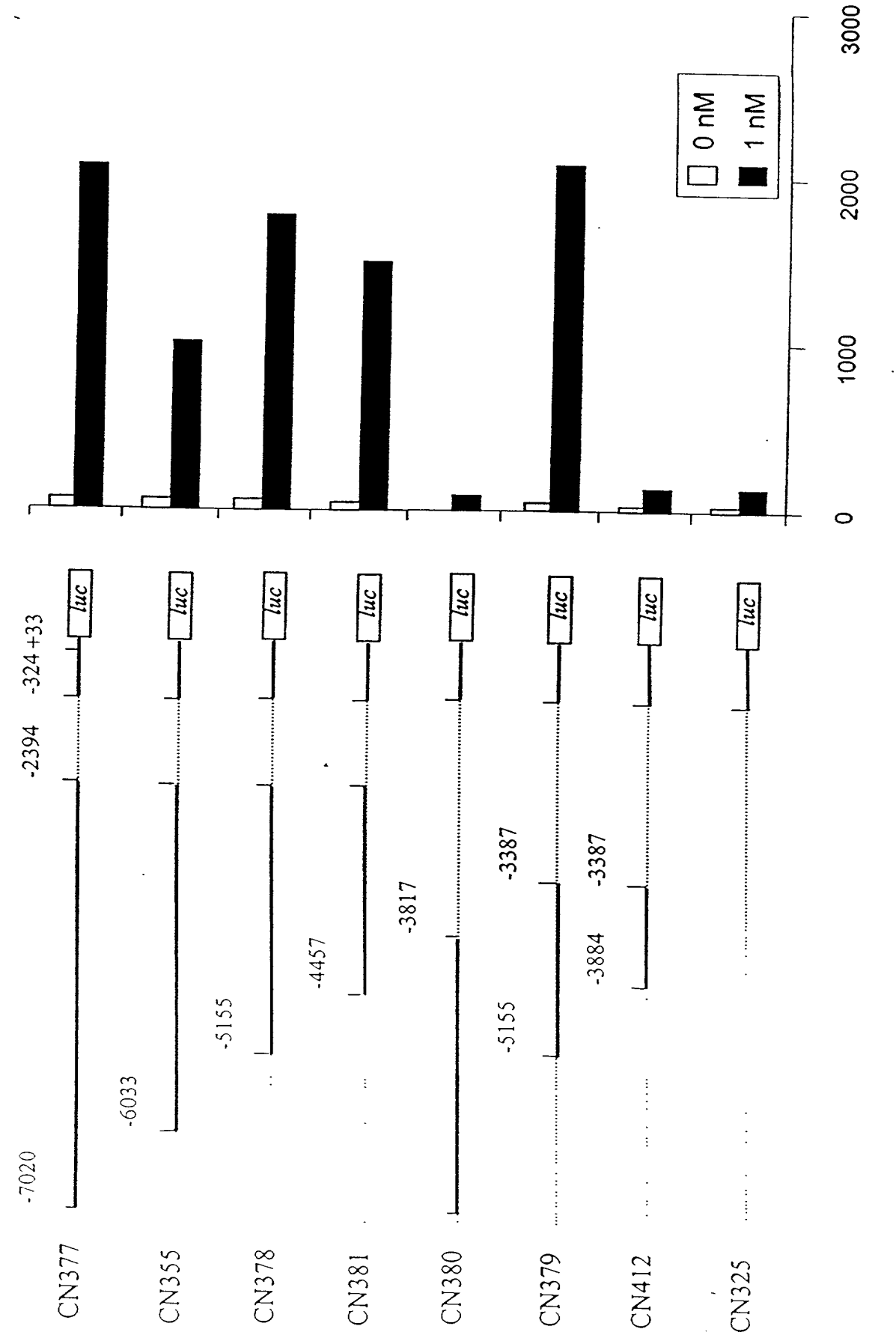


FIGURE 24A

Title: A HUMAN GLANDULAR KALLIKREIN ENHANCER, VECTORS COMPRISING THE ENHANCER AND METHODS OF USE THEREOF
Inventor: De Chao YU et al.
Application No.: 09/875,228
Docket No.: 348022000901

EP 1 225 226 A2

FIGURE 24B



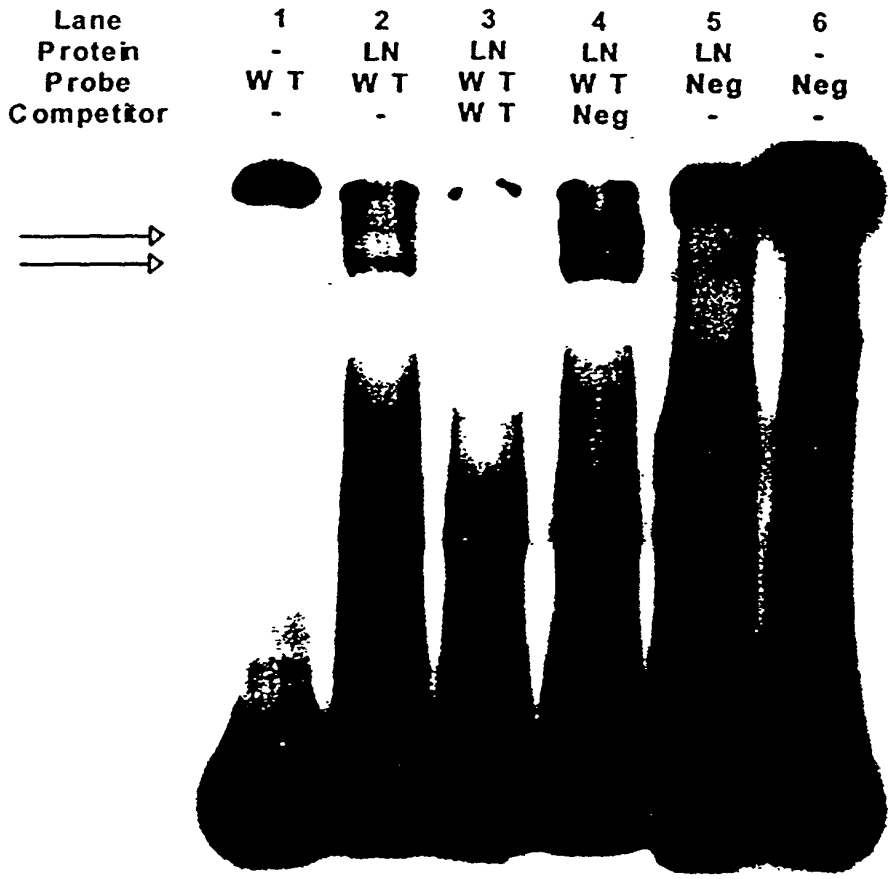

Lane 1 2 3 4 5 6
Protein - LN LN LN LN -
Probe W T W T W T W T Neg Neg
Competitor - - W T Neg - -

FIGURE 25A

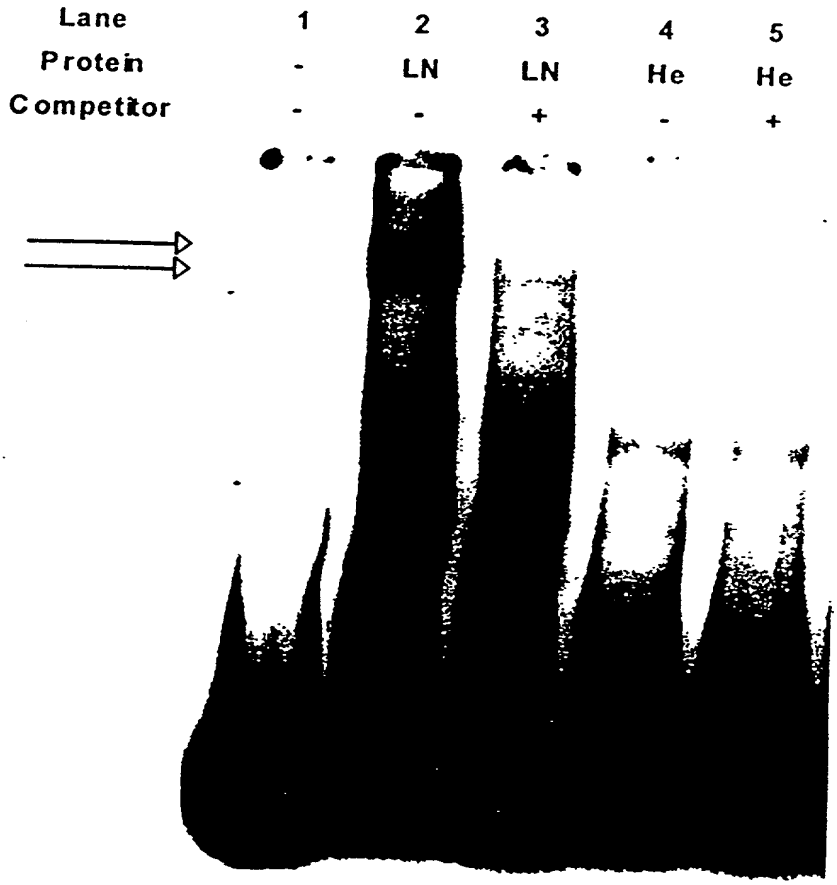


FIGURE 25B

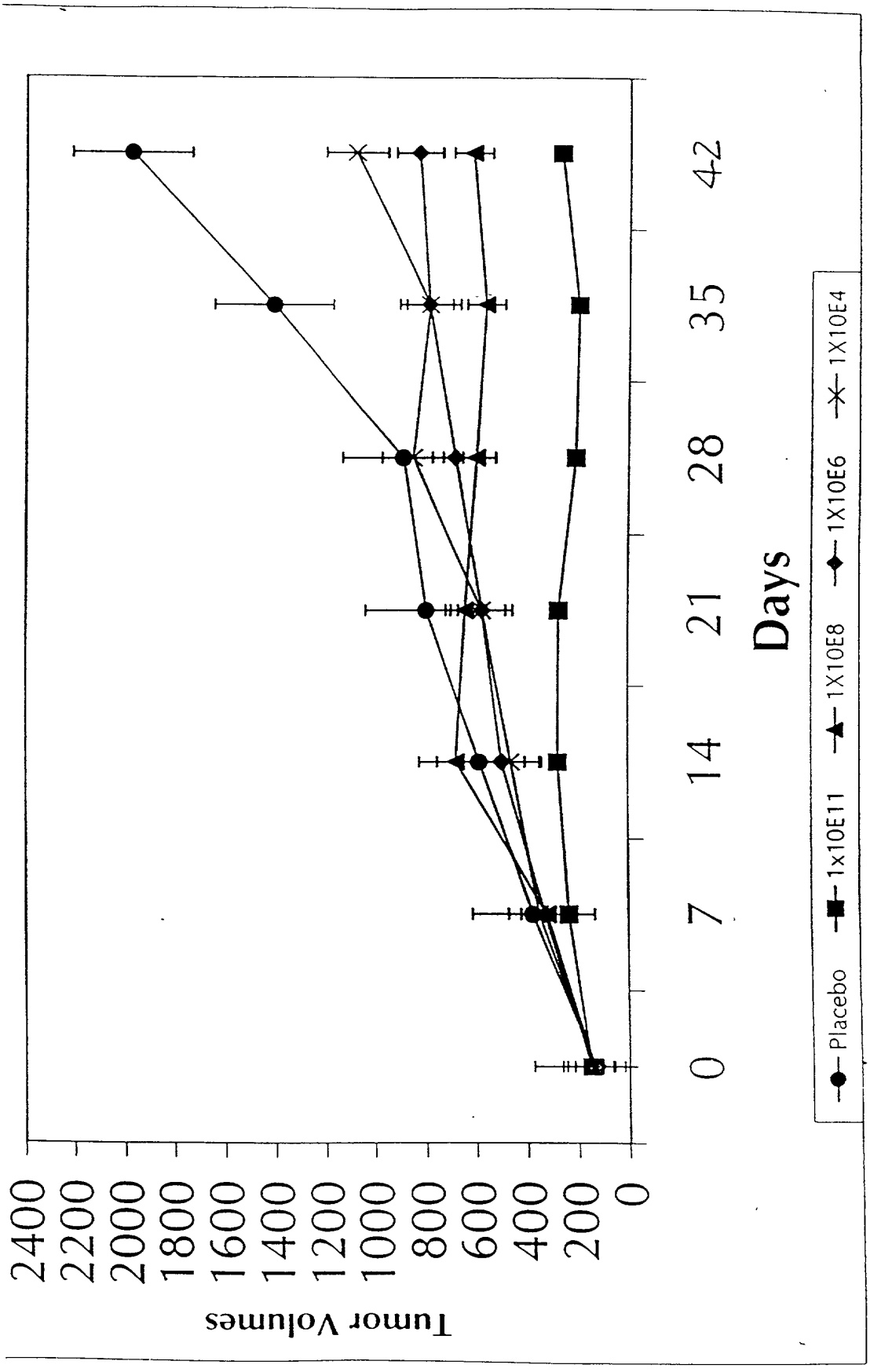

Tumor Volumes
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
7
14
21
28
35
42
Days
Placebo
1x10E11
1X10E8
1X10E6
1X10E4

FIGURE 26